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Chairman Ajit Pai
Commissioner Mignon Clyburn
Commissioner Michael O'Rielly
Commissioner Brendan Carr
Commissioner Jessica Rosenworcel
445 12th Street SW
Washington, D.C. 20554

RE: PS Docket Nos. 15-94, 15-91, FCC 18-94

Mr. Chairman and Commissioners,

Sonoma County Emergency Management division appreciates the opportunity to provide feedback on critical shortcomings related to the Federal Wireless Emergency Alert (WEA) system being considered by your committee. As Sonoma County recently just passed the one year anniversary of the 2017 North Bay fires that ravaged our community and took the lives of 24 people, we are starkly reminded of the limitations of the Federal WEA system and the vast improvements that still need to be made to make it an effective life safety tool. Sonoma County is in a unique position to provide validated feedback to your committee, having activated the IPAWS system and initiated alerts in both English and Spanish languages for both real-life and test evacuation incidents. The most recent testing of the WEA system, which was conducted on September 12, 2018 included an in-depth public survey, the first feedback loop of its kind. Based on Sonoma County Emergency Management's experiences with the WEA system in Sonoma County during real-life evacuation incidents, and the recent validation and additional feedback from the live testing of the Federal WEA system, Sonoma County strongly feels there is a need for vast improvements of the reliability, geo-targeting, and information about how the Federal WEA system operates for it to be a useful life safety tool for emergency managers.

The Federal WEA system is marketed as the ultimate alert and warning platform that is able to meet the public's expectations of when and how government entities will notify them during times of imminent danger. Currently, the public's expectation of these systems do not match their capabilities. We highly recommend the FCC require telecommunications companies provide critical information that can assist public safety officials in making data driven decisions that can help save more lives during disasters. Information such as cell tower locations, how different telecommunications providers distribute federal WEA messages (particularly

regarding geographically targeted messages), timing of the messages, if other carriers are on their cell towers, backup power and telecommunication links, and feedback on numbers of how many phones possibly got the message (ex: how many cell phones were attached to the cell tower when the alert was initiated) will assist emergency manager's ability to accurately and confidently target messaging, and is critical to ensuring overall public safety during times of disaster.

Feedback from IPAWS should allow alert and warning officials to validate where the message went, when, and how many people received it. This can be utilized to identify over and under alerting to help draft follow up and better targeted messages. Knowing what phones receive the message, if the phone made an audible alert, and if there were any gaps in delivery is critical feedback.

Currently, phones in voice or data sessions may not receive a federal WEA message. This must change and mobile devices should be required to make an audible, vibratory and visual alert even when it is in a silent mode. Many respondents to Sonoma County's survey voiced concerns about leaving their phone on silent while they sleep expecting that a WEA would override the phone settings when it clearly did not during the Sonoma County and National tests.

Sonoma County Emergency Management staff are looking forward to the coming FCC required changes which will take effect in May and November 2019. The enhanced "geo-targeting" capabilities that will allow WEA alerts to be delivered to no more than one-tenth of a mile outside of the target area and the increased character count from 90 to 360 characters will allow for more specific and targeted messaging. These improvements will greatly enhance local jurisdictions' capabilities to provide effective messaging. However, Sonoma County urges the FCC to specify that the new requirements should be completed on the 2019 timeline, rather than the 2019 dates signifying the start of implementation. There are many unanswered questions regarding the execution of these changes. Alert and warning officials will need to know if these changes will be applicable to phones that can now receive the WEA alerts or only new phones going forward. For example, Emergency Managers do not know if all WEA compatible phones will accept 360 character messages, or if some phones will be limited to 90 characters.

In addition to required information on data like cell carrier towers, updates are needed on rules, regulations and laws like the ones that allow public safety agencies to purchase MSAG 9-1-1 data. These laws allow first responders to purchase landline data. The technology has moved so quickly that the law is effectively out of date since it does not allow purchase of other contact modes telecommunications providers provide, such as Voice Over Internet Protocol (VOIP) or cell phone data that could be imported into systems like Code Red or Everbridge.

It is still unclear how the geo-targeting works per wireless carrier. This is imperative that we understand how it works now and after the 2019 implementation. It is critical that this Commission standardize and require carriers to utilize the same alerting protocols in the distribution of messages. Inconsistent policies between mobile phone carriers as to how they

distribute a WEA causes conflict. In an email, a Senior Field Assurance Engineering Manager from Verizon stated that they require a cell tower to be within the boundaries of the alert area in order to broadcast the alert. It is clear when comparing the two primary carriers in Sonoma County, AT&T and Verizon, that they have different methods, policies, and algorithms for distributing WEAs during the test. Since AT&T had such a large bleed over as compared to Verizon during the Field test conducted in 2018, Sonoma County Emergency Management can infer that AT&T's policy is that any cell tower's coverage that is within the boundaries of the alert issues the emergency message to all devices connected to that cell tower.

These differences cause significant issues for alert and warning officials when issuing alerts. With current policies of mobile carriers, it is almost impossible to target any area with any confidence. With Verizon specifically, alert and warning officials need to know where the towers are located to target those in the area. Without this information, it is possible to draw a polygon for a notification and not include a single Verizon tower. The opposite is the case with AT&T as a single cell tower could potentially provide coverage up to 50 miles away. With the test results from the Sonoma County, it appears there is limited geo-fencing or defined geographical boundary capabilities. During Sonoma County's test, when the test alert was issued to the Glen Ellen/Kenwood area, Sonoma Valley and Rohnert Park were alerted as well (Sonoma County Operational Area Alert and Warning After Action Report, Appendix D: Maps, page D-4). If geo-fencing were to work as publicized, the Cities of Petaluma, Rohnert Park, (most of) Santa Rosa, Sonoma and Windsor should not have received the alert during the test.

Having a required reporting mechanism will allow EAS participants, participating CMS providers, emergency managers, and members of the public to report into a database that the federal, state, and local government Alert and Warning Officials can utilize to identify clusters of similar false alerts. These groupings will allow alert and warning officials the ability to draft new policies and procedures to avoid them in the future.

It is paramount that the FCC mandate these feedback changes to new and existing cell phone devices. As software updates are pushed out, these upgrades should be incorporated. In the case that technology is not capable of handling these new capabilities, these requirements should be made of any new phone coming onto the market.

Our residents and visitors must understand how these systems work, look, and feel, and know what to do when they receive a notification. This is not just a responsibility of government; mobile carriers need to take part in the education.

In addition to public education, formal education for Alert and Warning Officials needs to be made available on these specific systems. An online basic course does not cover everything needed to manage and effectively communicate in times of disaster.

It is imperative that the Commission considers the recommendations outlined in this letter. The collective whole, government and telecommunications providers, still have a long way to go,

however, as improvements are made, these critical alert and warning systems will better match the public's expectations and improve life safety for the public.

Respectfully,

SHERYL BRATTON
County Administrator